

Geo Synchronous Satellite Launch Vehicle



FIRST OPERATIONAL FLIGHT OF GSLV

GSLV-F01

EDUSAT MISSION



Indian Space Research Organisation

DEVELOPMENTAL FLIGHTS



GSLV D1/G-SAT 1 Mission

Spacecraft mass : 1540 kg

April 18, 2001



GSLV D2/G-SAT 2 Mission

Spacecraft mass : 1823 kg



May 8, 2003

MISSION OBJECTIVE

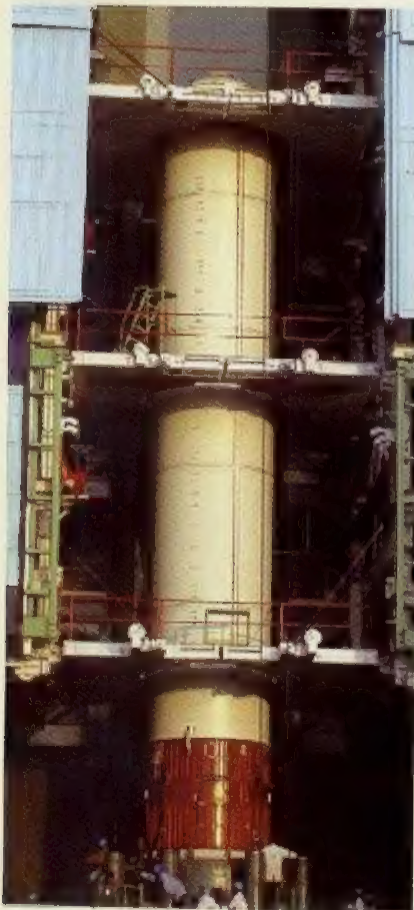
Launch of GSAT-3 (EDUSAT) into Geosynchronous Transfer Orbit

MISSION SPECIFICATIONS

Orbit	-	GTO
Perigee	-	180 ± 5 km
Apogee	-	35975 ± 675 km
Inclination	-	19.3 ± 0.1 deg.
Launch Azimuth	-	104 deg

VEHICLE CONFIGURATION

Vehicle height	:	49.1m
Lift-off mass	:	414t
No. of Stages	:	3
First Stage (GS1)	:	S139+4L40H
Second Stage (GS2)	:	L37.5H
Third Stage (GS3)	:	C12



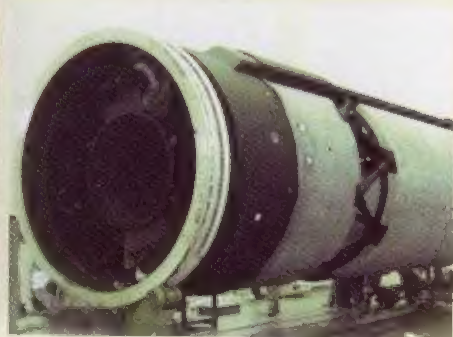
Solid Motor (S139)



Liquid Strapon (L40H)



GS2 Stage (L37.5H)

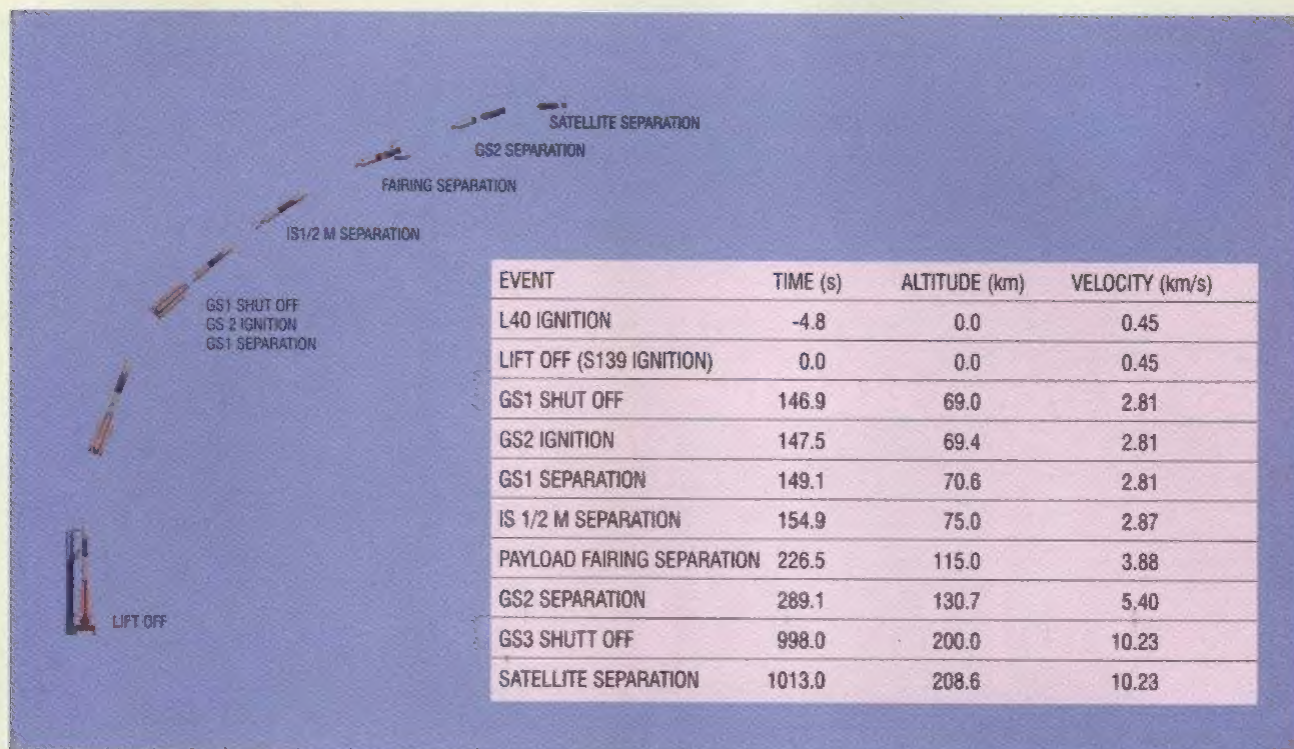


Cryo Stage (C12)

FLIGHT SEQUENCE

The overall flight sequence is given highlighting the nominal time, altitude and inertial velocity at critical events. Actual time of occurrence can vary since they are decided onboard.

GSLV-F01 Flight Profile

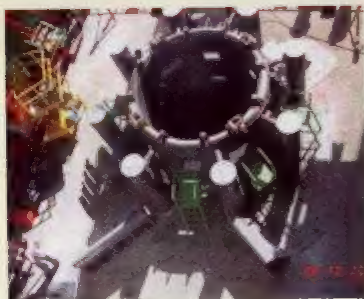


GSAT-3 (EDUSAT) SALIENT FEATURES



Orbital Location	72deg E
Payload	<ul style="list-style-type: none"> ● 6 Ku-band transponders ● 6 FSS extended C band transponders ● 1 Ku-band Beacon transmitter
Lift-off Mass	1950kg

LAUNCH CAMPAIGN ACTIVITIES



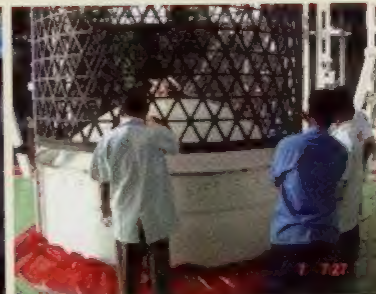
Launch pedestal ready



Positioning of NES+CBS module on pedestal



S139 segment joining



1/2V assembly



L40H on the way to MST



L40 tilting to vertical



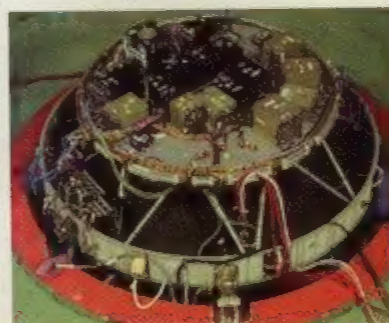
All 4 L40Hs & S139 assembled



GS2 assembly



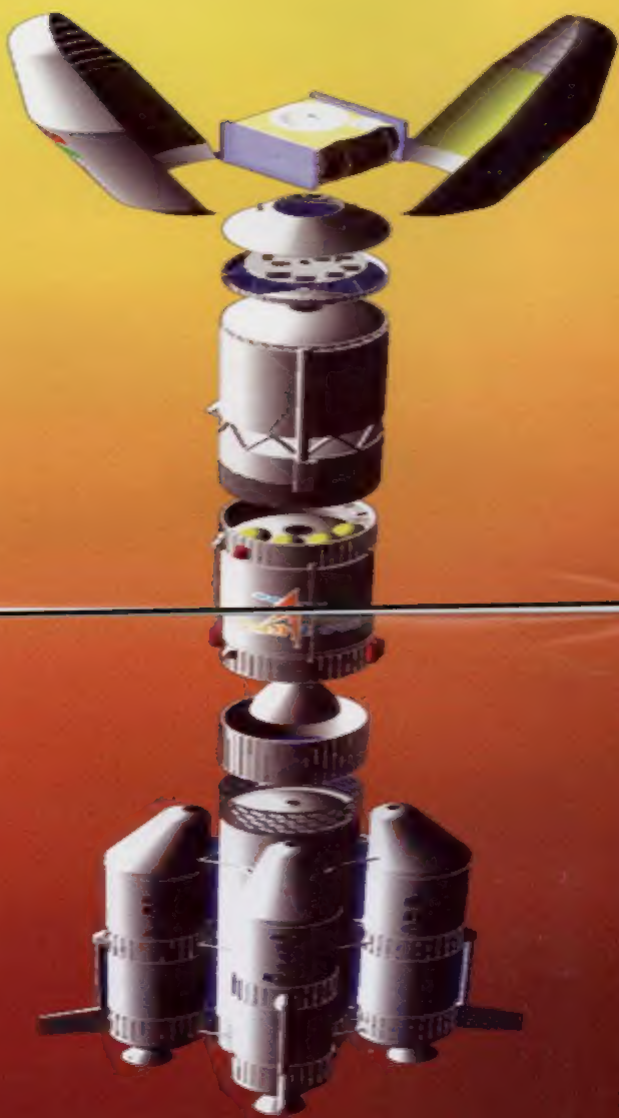
Cryo stage assembly



Equipment bay assembled to vehicle



Encapsulated assembly



GSLV
Exploded view